SCIENCE ABSTRACTS

SECTION A.—PHYSICS

VOL. XXXVIII

1935

EDITED AND ISSUED BY

THE INSTITUTION OF ELECTRICAL ENGINEERS,

SAVOY PLACE, VICTORIA EMBANKMENT, LONDON, W.C.2

IN ASSOCIATION WITH

THE PHYSICAL SOCIETY,

THE AMERICAN PHYSICAL SOCIETY,

THE AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS

AND L'ASSOCIAZIONE ELETTROTECNICA ITALIANA.

LONDON:

E. & F. N. SPON, LIMITED, 57 HAYMARKET, S.W.1

NEW YORK:

ENGINEERS' BOOK SHOP, 168 EAST 46TH STREET

U OF I
LIBRARY

ERRATA.

SECTION A.—PHYSICS.

1934

Abstract No. 4410, lines 10 and 14 ; *for* (111) *read* (11T).

1935.

Abstract No. 241, line 5 ; *for* neutron, *read* Newton.
Abstract No. 475, line 2 ; *for* E. Lifschitz, *read* E. Lifshitz.
Abstract No. 1069, line 2 ; *delete* and *after* thermal.
Abstract No. 1537, line 8 ; *for* travel-times, *read* arrival times (with $T_0 = 22h.\ 47\ m.\ 35s.$).
Abstract No. 2096, line 2 ; *for* pp. 533-535, *read* pp. 519-521.
Abstract No. 2198, line 5 ; *for* 4152 (1934), *read* 5152 (1934).
Abstract No. 2277, line 2 ; *for* A. A. Meyers, *read* A. L. Meyers.
Abstract No. 2681, line 1 ; *for* J. S. Smith, *read* J. L. Spencer-Smith.
Abstract No. 2752, line 3 ; *for* Schoenberg, *read* Shoenberg.
Abstract No. 3221, line 4 ; *for* L. R. Hafstod, *read* L. R. Hafstad.
Abstract No. 4553, line 2 ; *for* Narayanswamy, *read* Narayanaswamy.
Abstract No. 4574, line 2 ; *for* C. F. Saylor, *read* C. P. Saylor.
Abstract No. 5029, line 1 ; *for* Selenium Hydride, *read* Selenious Anhydride (SeO_2).

NOTICE OF WITHDRAWAL OF PAPERS

The originals of Abstracts 2187, 4336 and 4677 of 1934, and 880 of 1935, are withdrawn by the Author, Dr. E. Rupp, in accordance with his note published in the *Zeits. f. Physik*, 95. 11-12. *p.* 801, *July* 12, 1935.

533
Sec. A
vol. 38
1-5251
m/c

EDITOR.

H. G. SOLOMON, A.C.G.I., M.I.E.E.

ABSTRACTORS.

G. E. ALLAN, D.Sc.
R. F. ALLEN, B.Sc.
C. B. ALLSOPP, M.A., Ph.D.
J. P. ANDREWS, D.Sc., F.Inst.P.
W. R. ANGUS, M.A., B.Sc., Ph.D.
N. F. ASTBURY, M.A.
E. H. W. BANNER, M.Sc., A.M.I.E.E., F.Inst.P.
C. O. BANNISTER, A.R.S.M.
S. G. BARKER, Ph.D., F.Inst.P.
H. BARRELL, B.Sc., A.R.C.S., D.I.C.
F. S. BARTON, M.A., B.Sc., F.Inst.P., A.M.I.E.E.
G. E. BELL, B.Sc., A.Inst.P.
J. E. BENNETT, M.A., A.M.I.E.E.
P. H. BIGG, B.Sc.
N. M. BLIGH, A.R.C.S., A.I.C.
F. J. BRISLEE, D.Sc., F.I.C.
H. L. BROSE, D.Sc., D.Phil., M.A., F.Inst.P.
H. M. BROWNING, M.Sc., Ph.D., F.Inst.P.
J. M. BRUCKSHAW, M.Sc.
L. G. CARPENTER, B.A., B.Sc.
F. C. CHAMPION, M A., Ph.D.
L. V. CHILTON, M.A., F.Inst.P.
J. S. CLARK, B.Sc., A.R.C.S., D.I.C.
C. J. B. CLEWS, B.Sc., Ph.D., A.Inst.P.
J. E. R. CONSTABLE, Ph.D., M.A., B.Sc.
K. M. CONSTABLE, B.A., B.Sc.
A. DANIELL, M.A., D.Sc.
L. ESSEN, B.Sc.
M. A. EVERSHED, F.R.A.S.
J. EWLES, M.A.
D. H. FOLLETT, M.A., F.Inst.P.
R. C. FOX, Ph.D., B.Sc.(Eng.)., A.M.I.E.E.
A. E. M. GEDDES, M.A., D.Sc.
W. H. GEORGE, M.Sc., Ph.D., F.Inst.P.
H. F. GILLBE, Ph.D., B.Sc.
E. GRIFFITHS, D.Sc., F.R.S.
L. HARTSHORN, D.Sc., A.R.C.S., D.I.C.
A. HARVEY, Ph.D., B.Sc., F.Inst.P.
H. H. HODGSON, Ph.D., M.A., B.Sc.
E. J. IRONS, Ph.D., F.Inst.P.
W. JEVONS, D.Sc., Ph.D.
T. I. JONES, M.Sc., A.R.C.S., D.I.C.
J. KAYE, B.Sc.
J. E. KEYSTON, B.Sc., D.Phil.
E. LANCASTER-JONES, M.A.
R. LANG, B.Sc., Ph.D., A.Inst.P.
A. S. C. LAWRENCE, Ph.D.
B. J. LEGGETT, M.R.C.S.
T. M. LOWRY, D.Sc., F.R.S.
A. J. MCCONNELL, D.Sc., F.T.C.D.
T. L. MACDONALD, M.A.
G. C. MCVITTIE, M.A., Ph.D., F.R.A.S.
A. S. D. MAUNDER, F.R.A.S.
A. C. MENZIES, M.A., D.Sc.
W. E. PERRY, B.Sc.
T. H. POPE, B.Sc.
R. W. POWELL, B.Sc.
F. I. G. RAWLINS, M.Sc., F.Inst.P.
R. S. READ, M.A., B.Sc.
W. A. RICHARSDON, B.A., D.Sc., B.Sc.(Eng.), F.G.S.
J. E. ROBERTS.
E. RUSHTON, B.Sc.
C. A. SILBERRAD, B.A., B.Sc.
F. SIMEON, D.Sc.
H. J. H. STARKS, Ph.D., A.Inst.P.
J. J. STEWART, M.A., B.Sc., M.I.E.E.
W. S. STILES, Ph.D., B.Sc.
J. THEWLIS, M.Sc.
A. M. THOMAS, B.Sc., A.Inst.P.
J. S. G. THOMAS, D.Sc.
G. F. P. TRUBRIDGE, M.Sc., Ph.D.
P. VIGOUREUX, M.Sc., A.C.G.I., D.I.C., A.M.I.E.E.
J. W. T. WALSH, M.A., D.Sc., M.I.E.E.
W. H. WARD, B.Eng.
C. E. WEBB, B.Sc., A.C.G.I., D.I.C., A.M.I.E.E.
F. J. WILKINS, M.Sc., Ph.D.
A. WILKINSON, B.Sc.
A. B. WOOD, D.Sc.
L. A. WOODWARD, B.A., Ph.D.

LIST OF JOURNALS AND THEIR ABBREVIATIONS

A star (*) indicates that the Journals so marked are received only occasionally.

Abbreviations.	Full Title and Address.
Acad. Polonaise Sci. et Lettres, Bull.	Bulletin International de l'Academie Polonaise des Sciences et des Lettres. Gebethner et Wolff, Rynek Gl., Cracovie, Poland.
Acad. Sci., Proc., U.P., India	Proceedings of the Academy of Sciences (United Provinces of Agra and Oudh, India), Allahabad, U.P., India.
Accad. d'Italia, Mem.	Memorie della Reale Accademia d'Italia, Rome, Italy.
Accad. Lincei, Atti	Atti della Reale Accademia Nazionale dei Lincei. Dott. Giovanni Bardi, Piazza Madama 19–20, Rome (111), Italy.
Accad. Sci. Torino, Atti	Atti della Reale Accademia delle Scienze di Torino. 3, Via Maria Vittoria, Turin (101), Italy.
A.C.E.C.	Ateliers de Constructions Electriques de Charleroi. Route de Philippeville, Charleroi, Belgium.
Acoustical Soc. of America, J.	Journal of the Acoustical Society of America. The American Institute of Physics, 11, East 38th Street, New York, U.S.A.
Acta Physica Polonica	Acta Physica Polonica, Institut de Physique Expérimentale de l'Université, 69, rue Hoza, Warsaw, Poland.
Acta Physicochimica	Acta Physicochimica, Mejdounarodnaia Kniga 18, Kouznetzki Most, Moscow, U.S.S.R.
A.E.G. Mitt	A.E.G. Mitteilungen. Schlegelstrasse 26-27, Berlin, N.4.
Akad. Wiss. Wien, Ber.	Sitzungsberichte der Akademie der Wissenschaften in Wien. Mathematisch-naturwissenschaftliche Klasse. Universitätsplatz 2, Vienna I.
Alta Frequenza	Alta Frequenza. Associazione Elettrotecnica Italiana, Via San Paolo N.10, Milan (2/2), Italy.
Am. Acad., Proc.	Proceedings of the American Academy of Arts and Sciences. 28, Newbury Street, Boston, Mass., U.S.A.
Am. Chem. Soc., J.	Journal of the American Chemical Society. Charles L. Parsons, Mills Building, Washington, D.C., U.S.A.
Am. Electrochem. Soc., Trans.	Transactions of the American Electrochemical Society. Columbia University, New York, U.S.A.
Am. Geophys. Union, Trans.	Transactions of the American Geophysical Union, National Research Council, Constitution Avenue and 21st Streets, Washington, D.C., U.S.A.
Am. Illum. Eng. Soc., Trans.....	Transactions of the American Illuminating Engineering Society. Mt. Royal & Guilford Aves., Baltimore, Maryland, U.S.A.
Am. J. Sci.	American Journal of Science. New Haven, Connecticut, U.S.A.
Am. J. of Roentgenology and Radium Therapy	The American Journal of Roentgenology and Radium Therapy. Charles C. Thomas, 220, East Monroe Street, Springfield, Illinois, U.S.A.
Am. Phil. Soc., Proc.....	Proceedings of the American Philosophical Society, 104, South Fifth Street, Philadelphia, Pa., U.S.A.

Abbreviations.	Full Title and Address.
Am. Phys. Teacher	The American Physics Teacher. The American Institute of Physics, 11, East 38th Street, New York, U.S.A.
*Am. Statist. Assoc., J.	Journal of the American Statistical Association. Boston, Mass., U.S.A.
Ann. d. Physik	Annalen der Physik. J. A. Barth. Salomonstrasse 18B, Leipzig, C1, Germany.
Ann. de Physique	Annales de Physique. Masson et Cie, Libraires de l'Academie de Médecine, 120, Boulevard Saint-Germain, Paris (VI^e).
Ann. Soc. Sci. de Bruxelles	Annales de la Société Scientifique de Bruxelles. 2, Rue de Manège, Louvain, Belgium.
Annales des P.T.T.	Annales des Postes, Télégraphes et Téléphones. Librairie de l'Enseignement Technique, 3, Rue Thénard, Paris (5^e).
Arch. des Sciences	Archives des Sciences Physiques et Naturelles. Institut de Physique de l'Université, Geneva, Switzerland.
Arch. f. Elektrot	Archiv für Elektrotechnik. J. Springer, Linkstrasse 23–24, Berlin, W.9.
Arch. f. Wärmewirtsch	Archiv für Wärmewirtschaft und Dampfkesselwesen. V.D.I. Verlag G.m.b.H., Dorotheenstrasse 40, Berlin, N.W.7.
Arkiv f. Kem. Min. och Geologie, Stockholm.	Arkiv för Kemi, Mineralogi och Geologie, Almqvist and Wiksells Boktryckeri-A.-B., Stockholm, Sweden.
Arkiv f. Mat., Astron., och Fysik, Stockholm	Arkiv för Matematik, Astronomi, och Fyski. Almqvist and Wiksells Boktryckeri-A.-B., Stockholm, and Wheldon and Wesley, Ltd., 2, 3 and 4, Arthur Street, London, W.C.2.
A.S.E.A. J.	A.S.E.A. Journal. Allmänna Svenska Elektriska A.B., Västerås, Sweden, and A.S.E.A. Electric Ltd., 5, Chancery Lane, London, W.C.2.
A.S.M.E., Trans.	Transactions of The American Society of Mechanical Engineers, 29, West 39th Street, New York, U.S.A.
Assoc. Ing. El. Liège, Bull.	Bulletin de l'Association des Ingénieurs Électriciens sortis de l'Institut Électrotechnique Montefiore. 31, Rue Saint Gilles, Liège, Belgium.
Assoc. Suisse Élect., Bull.	Association Suisse des Électriciens Bulletin. Secretariat General de l'A.S.E. et de l'U.C.S., Seefeldstrasse 301, Zürich 8, Switzerland.
Astron. Iakttagelser och Undersökning. Stockholms Obs.	Astronomiska Iakttagelser och Undersökningar Stockholms Observatorium. Almqvist and Wiksells Boktryckeri-A.-B., Stockholm, Sweden.
Astrophys. J.	The Astrophysical Journal. The University of Chicago Press, 5750 Ellis Avenue, Chicago, Illinois, U.S.A.
A.T.M.	Archiv für technisches Messen. R. Oldenbourg, Glückstrasse 8, Munich 32, Germany.
Beitr. z. angew. Geophys.	Beiträge zur angewandten Geophysik. Akademische Verlagsgesellschaft m.b.H., Markgrafenstrasse 6, Leipzig, C1, Germany.
Bell System Techn. J.	Bell System Technical Journal. The American Telephone and Telegraph Co., 195, Broadway, New York, U.S.A.
Bell Telephone Quarterly	Bell Telephone Quarterly. The American Telephone and Telegraph Company, 195, Broadway, New York, U.S.A.
Brit. J. of Radiology	The British Journal of Radiology. The British Institute of Radiology, 32, Welbeck Street, London, W.1.
Brown Boveri Rev.	The Brown Boveri Review. Richardsons Westgarth-Brown Boveri, Ltd., 56, Victoria Street, London, S.W.1.

ABBREVIATIONS.	FULL TITLE AND ADDRESS.
*Bull. Am. Meteorolog. Soc.	Bulletin of the American Meteorological Society. Easton, Pa., U.S.A.
Bull. Astronomique	Bulletin Astronomique. Gauthier-Villars et Cie, Quai des Grands-Augustins 55, Paris.
Bull. géodésique	Bulletin géodésique. Organe de l'Association de Géodésie de l'Union Géodésique et Géophysique Internationale. Rue d'Anjou, 78, Paris (8e).
Bull. Oerlikon	Bulletin Oerlikon. Oerlikon, Ltd., Victoria House, Southampton Row, London, W.C.1.
Bureau of Mines, Bull., Economic Papers and Techn. Papers	Publications of the Bureau of Mines. U.S. Department of Commerce, Superintendent of Documents, Government Printing Office, Washington, D.C., U.S.A.
Bureau of Standards, J. of Research, *also* Circ. & Misc. Publ.	Publications of the National Bureau of Standards. Superintendent of Documents, Government Printing Office, Washington, D.C., U.S.A.
Calcutta Math. Soc., Bull.	Bulletin of the Calcutta Mathematical Society. H. P. Banerjee, M.Sc., 53/1, Shambazar Street, Calcutta, India.
Cambridge Phil. Soc., Proc.	Proceedings of the Cambridge Philosophical Society. The Cambridge University Press, Fetter Lane, London, E.C.4.
Canad. J. of Research	Canadian Journal of Research. National Research Council of Canada, Ottawa, Canada.
Chem. Soc., J.	Journal of the Chemical Society. The Chemical Society, Burlington House, Piccadilly, London, W.1.
Chem. Soc. Japan, Bull.	Bulletin of the Chemical Society of Japan. Faculty of Science, Imperial University of Tokyo, Japan.
Chinese Chem. Soc., J.	Journal of the Chinese Chemical Society. Department of Chemistry, National University of Peking, China.
Coast and Geodetic Survey, Special Publ.	Coast and Geodetic Survey. Special Publications. U.S. Department of Commerce, Superintendent of Documents, Government Printing Office, Washington, D.C., U.S.A.
Colliery Guardian	The Colliery Guardian. 30 and 31, Furnival Street, Holborn, London, E.C.4.
Com. Geod. e. Geofis., Boll. & Publ.	Bollettino e Publicazioni del Comitato per la Geodesia et la Geofisica del Consiglio Nazionale delle Ricerche. Istituto di Topografia a Geodesia del R. Istituto Superiore di Ingegneria, Piazza Leonardo da Vinci, Città degli Studi, Milan, Italy.
Comptes Rendus	Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences. Gauthier-Villars et Cie, Quai des Grands-Augustins 55, Paris (6e).
Comptes Rendus (Doklady) de l'Acad. des Sciences, U.S.S.R.	Comptes Rendus (Doklady) de l'Academie des Sciences, Moscow, U.S.S.R., and Kniga, Ltd., Bush House, Aldwych, London, W.C.2.
Cornell Univ. Eng. Experiment Sta., Bull.	Bulletin of the Engineering Experiment Station, College of Engineering, Cornell University, Ithaca, New York, U.S.A.
Dept. Sci. & Indust. Research, Publ.	Publications of the Department of Scientific and Industrial Research, H.M. Stationery Office, Adastral House, Kingsway, London, W.C.2.
Die Physik	Die Physik. J. A. Barth, Salomonstrasse 18B. Leipzig, C1, Germany.
Dominion Astrophys. Obs. Victoria, Publ.	Publications of the Dominion Astrophysical Observatory, Victoria. Victoria, B.C., Canada.
Dominion Observat., Ottawa, Publ.	Publications of the Dominion Observatory, Ottawa. Department of the Interior, Ottawa, Canada.

Abbreviations.	Full Title and Address.
El. Rev.	The Electrical Review. Dorset House, Stamford Street, London, S.E.1.
El. Rly. Bus and Tram J.	The Electric Railway, Bus and Tram Journal. Avenue Chambers, Vernon Place, Southampton Row, London, W.C.1.
El. Times	The Electrical Times. Sardinia House, Kingsway, London, W.C.2.
El. World	Electrical World. McGraw-Hill Publishing Co., Inc., 330, West 42nd Street, New York, U.S.A., and Aldwych House, London, W.C.2.
Elect. Communication	Electrical Communication. International Standard Electric Corporation, 67, Broad Street, New York, U.S.A., and Connaught House, Aldwych, London, W.C.2.
Elect. Engineering	Electrical Engineering. Journal of the American Institute of Electrical Engineers, 33, West 39th Street, New York, U.S.A.
Elect. J.	The Electric Journal. 530, Fernando Street, Pittsburg, Pa., U.S.A.
Electrician	The Electrician. Bouverie House, 154, Fleet Street, London, E.C.4.
Electrodepositors' Techn. Soc.	Papers of the Electrodepositors' Technical Society. Northampton Polytechnic Institute, Clerkenwell, London, E.C.1.
Electronics	Electronics. The McGraw-Hill Publishing Co., Inc., 330, West 42nd Street, New York, U.S.A., and Aldwych House, London, W.C.2.
Electrot. Laborat. Tokyo, Japan, Circ.	Circulars of the Electrotechnical Laboratory, Tokyo, Japan. Electrotechnical Laboratory, Ministry of Communications, Tokyo, Japan.
Electrot. Laborat. Tokyo, Japan, Researches	Researches of the Electrotechnical Laboratory, Tokyo, Japan. Electrotechnical Laboratory, Ministry of Communications, Tokyo, Japan.
Elek. Betrieb	R.E.A. der Elektrische Betrieb. Georg Siemens, Kurfürstenstrasse 2, Berlin, W.57.
Elek. im Bergbau	Elektrizität im Bergbau. R. Oldenbourg, Glückstrasse 8, Munich 32, Germany.
Elektroschweissung	Die Elektroschweissung. Zeitscrift für die Gebiete der elektrischen Schweissverfahren und deren Anwendung. F. Vieweg und Sohn A.G. Vor der Burg 18, Braunschweig, Germany.
Elettrotecnica	L'Elettrotecnica. Giornale ed Atti dell' Associazione Elettrotecnica Italiana, Via S. Paolo 10, Milan (2/2), Italy.
Engineer	The Engineer. 28, Essex Street, Strand, London, W.C.2.
Engineering	Engineering. 35 and 36, Bedford Street, Strand, London, W.C.2.
E.N.T.	Elektrische Nachrichten-technik. J. Springer, Linkstrasse 23–24, Berlin, W.9.
Ergeb. d. exakt. Naturwiss.	Ergebnisse der exakten Naturwissenschaften. Hirschwaldsche Buchhandlung, Unter den Linden 68, Berlin, N.W.7.
Ericsson Rev.	Ericsson Review. Telefonaktiebolaget. L. M. Ericsson, Döbelnsgatan 18, Stockholm, Sweden.
Ericsson Technics	Ericsson Technics. Telefonaktiebolaget. L. M. Ericsson, Döbelnsgatan 18, Stockholm, Sweden.
E.T.Z.	Elektrotechnische Zeitschrift. J. Springer, Linkstrasse 23–24, Berlin, W.9.
E. u. M.	Elektrotechnik und Maschinenbau. Theobaldgasse 12, Vienna 6, Austria.
Faraday Soc., Trans.	Transactions of the Faraday Society. Gurney and Jackson, 33, Paternoster Row, London, E.C.4.

Abbreviations.	Full Title and Address.
Forsch. IngWes.	Forschung auf dem Gebiete des Ingenieurwesens. Ausgabe B. V.D.I.Verlag, G.m.b.H., Berlin, S.W.7.
Frank. Inst., J.	Journal of the Franklin Institute. The Franklin Institute of the State of Pennsylvania, Twentieth Street and Parkway, Philadelphia, Pa., U.S.A.
*Gaz. Chimica Italiana	Gazzetta Chimica Italiana. Via Quattro November 154. Rome, Italy.
G.E.C. J.	G.E.C. Journal. The General Electric Co., Ltd., Magnet House, Kingsway, London, W.C.2.
Gen. El. Rev.	General Electric Review. The General Electric Co., Schenectady, New York, U.S.A., and Crown House, Aldwych, London, W.C.2.
Geofysiske Publ.	Geofysiske Publikasjoner. Direktor Th. Hesselberg, Det Norske Videnskaps. Akademi, Oslo, Norway.
Geolog. Mag.	The Geological Magazine. Dulau & Co., Ltd., 2, Stafford Street, Old Bond Street, London, W.1.
Geophys. Mag., Tokyo	The Geophysical Magazine. The Central Meteorological Observatory, Tokyo, Japan.
Gerlands Beitr. z. Geophys.	Gerlands Beiträge zur Geophysik. Akademische Verlagsgesellschaft m.b.H., Markgrafenstrasse 6, Leipzig, C1, Germany.
Göttingen Nachrichten	Nachrichten von der Gesellschaft der Wissenschaften zu Göttingen. Vandenhoeck and Ruprecht, Göttingen, Germany.
Harvard Coll. Obs., Ann.	Annals of the Harvard College Observatory. The Observatory, Cambridge, Mass., U.S.A.
Harvard Coll. Obs., Bull.	Bulletin of the Harvard College Observatory. The Observatory, Cambridge, Mass., U.S.A.
Harvard Coll. Obs., Circ.	Circular of the Harvard College Observatory. The Observatory, Cambridge, Mass., U.S.A.
Helv. Phys. Acta	Helvetica Physica Acta. E. Birkhäuser et Cie, Bâle, Switzerland.
Hiroshima Journ. Sci.	Journal of Science of the Hiroshima University. Hiroshima University, Hiroshima, Japan.
Hochfrequenztechn. u. Elektroakustik	Hochfrequenztechnik und Elektroakustik, Akademische Verlagsgesellschaft m.b.H., Markgrafenstrasse 6, Leipzig, C1, Germany.
Hokkaido Imp. Univ., Eng. Mem.	Memoirs of the Faculty of Engineering. Hokkaido Imperial University, Sapporo, Japan.
Ice and Cold Storage	Ice and Cold Storage. 35, Foster Lane, Cheapside, London, E.C.2.
I.E.E., J.	Journal of the Institution of Electrical Engineers. Savoy Place, Victoria Embankment, London, W.C.2.
I.E.E., Japan, J.	Journal of the Institution of Electrical Engineers of Japan. The Denki-Gakkwai, No. 3, 1-Chome, Yûraku-chô, Kôjimachi-ku, Tokyo, Japan.
I.E.E., Students' J.	Students' Quarterly Journal. The Institution of Electrical Engineers, Savoy Place, Victoria Embankment, London, W.C.2.
Illum. Eng., London	The Illuminating Engineer. The Journal of Good Lighting. 32, Victoria Street, London, S.W.1.
Illum. Eng. Soc., Trans.	Transactions of the Illuminating Engineering Society. 32, Victoria Street, London, S.W.1.
Imp. Acad. Tokyo, Proc.	Proceedings of the Imperial Academy of Tokyo, Ueno Park, Tokyo, Japan.
Imp. Marine Obs., Kobe, Japan, Mem.	Memoirs of the Imperial Marine Observatory, Kobe, Japan.

Abbreviations.	Full Title and Address.
India Meteorolog. Dept., Mem.	Memoirs of the India Meteorological Department. The Manager of Publications, Delhi, and the High Commissioner for India, India House, Aldwych, London, W.C.2.
India Meteorolog. Dept., Sci. Notes	Scientific Notes of the India Meteorological Department, The Manager of Publications, Delhi, and the High Commissioner for India, India House, Aldwych, London, W.C.2.
Indian Acad. Sci., Proc.....	Proceedings of The Indian Academy of Science. Hebbal, Bangalore, India.
Indian. Inst. of Science, J.....	Journal of The Indian Institute of Science. The Bangalore Press, Mysore Road, Bangalore City, India.
Indian Journ. Phys.	Indian Journal of Physics and Proceedings of the Indian Association for the Cultivation of Science. 210, Bow-Bazar Street, Calcutta, India.
Indian Phys.-Math., J.	Indian Physico-Mathematical Journal. J. Ghosh, Presidency College, Calcutta, India.
Indust. and Engin. Chem.	Industrial and Engineering Chemistry. The American Chemical Society. Charles L. Parsons, Mills Building, Washington, D.C., U.S.A.
Indust. & Engin. Chem. (Analytical Edition)	Industrial & Engineering Chemistry (Analytical Edition). The American Chemical Society, Charles L. Parsons, Mills Building, Washington, D.C., U.S.A.
Ingegnere	L'Ingegnere. Rivista Tecnica e Sindacale Sindacato Nazionale Fascista Ingegneri, Via Vittorio Veneto, 7, Casella Postale 482, Rome 105, Italy.
*Ingen. Vidensk. Skr. A.	Ingeniorvidenskabelige Skrifter A. G.E.C.Gad, Vimmelskaftet 32, Copenhagen, Denmark.
Inst. Automobile Eng., J.	Journal of the Institution of Automobile Engineers, Watergate House, York Buildings, Adelphi, London, W.C.2.
*Inst. Chem. Eng., Trans.	Transactions of the Institute of Chemical Engineers, Abbey House, Westminster, London, S.W.1.
Inst. Civ. Eng., Proc. and J.	Proceedings and Journal of the Institution of Civil Engineers. Great George Street, Westminster, London, S.W.1.
Inst. Civ. Eng., Selected Eng. Papers	Institution of Civil Engineers, Selected Engineering Papers. Great George Street, Westminster, London, S.W.1.
Inst. Eng. & Shipbuilders, Trans...	Transactions of the Institution of Engineers and Shipbuilders in Scotland. Elmbank Crescent, Glasgow, Scotland.
Inst. Eng. Australia, J.	Journal of the Institution of Engineers, Australia. Science House, Gloucester and Essex Streets, Sydney, New South Wales, Australia.
Inst. Mech. Eng., Proc.	Proceedings of the Institution of Mechanical Engineers. Storey's Gate, St. James's Park, London, S.W.1.
Inst. of Metals, J.....	Journal of the Institute of Metals. 36, Victoria Street, London, S.W.1.
Inst. Naval Architects, Trans.....	Transactions of the Institution of Naval Architects. 2, Adam Street, Adelphi Terrace, London, W.C.2.
Inst. Petroleum Technologists, J...	Journal of the Institution of Petroleum Technologists, Aldine House, Bedford Street, Strand, W.C.2.
Inst. Phys. and Chem. Research, Tokyo, Sci. Papers	Scientific Papers of the Institute of Physical and Chemical Research. Komagome, Hongo, Tokyo, Japan.
Inst. Post Office El. Eng., Papers..	The Institution of Post Office Electrical Engineers, Printed Papers. The Librarian, General Post Office (Alder House), London, E.C.1.

Abbreviations.	Full Title and Address.
International Conference on Large H.T. Systems, Paris, Papers	Papers of the International Conference on Large High-Tension Systems, Paris. 54, Avenue Marceau, Paris.
I.R.E., Proc.	Proceedings of the Institute of Radio Engineers, 330, West 42nd Street, New York, U.S.A.
Iron and Steel Inst., J.	Journal of the Iron and Steel Institute, 28, Victoria Street, London, S.W.1.
*Japanese J. of Astron. and Geophys.	Japanese Journal of Astronomy and Geophysics, Tokyo, Japan.
Japanese Journ. Eng.	Japanese Journal of Engineering. The Secretary, National Research Council, Imperial Academy House, Ueno Park, Tokyo, Japan.
Japanese Journ. Math.	Japanese Journal of Mathematics. The Secretary, National Research Council, Imperial Academy House, Ueno Park, Tokyo, Japan.
J. Chem. Phys.	Journal of Chemical Physics. The American Institute of Physics, 11, East 38th Street, New York, U.S.A.
J. de Physique et le Radium	Journal de Physique et le Radium. 12, Place de Laborde, Paris (VIII^{e}).
J. de Radiologie et d'Électrologie.	Journal de Radiologie et d'Électrologie. Masson et Cie, Libraires de l'Académie de Médecine, 120, Boulevard Saint-Germain, Paris.
J. Inst. F.	Journal of the Institute of Fuel. 53, Victoria Street, London, S.W.1.
J. Math. Phys.	Journal of Mathematics and Physics, The Managing Editor, Massachusetts Institute of Technology, Cambridge, Mass., U.S.A.
J. of Applied Mechanics	Journal of Applied Mechanics. The American Society of Mechanical Engineers, 29, West 39th Street, New York, U.S.A.
J.O.S.A.	Journal of the Optical Society of America. The American Institute of Physics, 11, East 38th Street, New York, U.S.A.
J. Phys. Chem.	Journal of Physical Chemistry. Williams & Wilkins Co., Mt. Royal and Guilford Avenues, Baltimore, Maryland, U.S.A., and Baillière, Tindall & Cox, 8, Henrietta Street, Covent Garden, London, W.C.2.
Journ. Sci. Instruments	Journal of Scientific Instruments. The Institute of Physics, 1, Lowther Gardens, Exhibition Road, London, S.W.7.
Journ. Télécommunications	Journal des Télécommunications. Bureau de l'Union Internationale des Télécommunications, Berne, Switzerland.
Junior Inst. Eng., J.	Journal of the Junior Institution of Engineers. 39, Victoria Street, Westminster, S.W.1.
K. Akad. Amsterdam, Proc.	Proceedings of the Koninklijke Akademie van Wetenschappen te Amsterdam. N.V. Noord-Hollandsche Uitgeversmij, Amsterdam, Holland.
K. Onnes Lab., Leiden, Comm.	Communications of the Kamerlingh Onnes Laboratory of the University of Leiden, Leiden, Holland.
Kolloid-Beihefte	Kolloid-Beihefte. Theodor Steinkopff, Residenzstrasse 32, Dresden-Blasewitz, Germany.
Kolloid Zeits.	Kolloid Zeitschrift. Theodor Steinkopff, Residenzstrasse 32, Dresden-Blasewitz, Germany.
Kyoto Coll. Eng., Mem.	Memoirs of the Kyoto Imperial University College of Engineering. Maruzen Co., Ltd., Tokyo, Japan.
Kyoto Coll. Sci., Mem.	Memoirs of the College of Science, Kyoto Imperial University. Maruzen Co., Ltd., Tokyo, Japan.

Abbreviations.	Full Title and Address.
Kyushu Univ., Faculty of Eng., Mem.	Memoirs of the Faculty of Engineering, Kyushu Imperial University, Fukuoka, Japan.
Leeds Philosoph. and Lit. Soc., Proc.	Proceedings of the Leeds Philosophical and Literary Society. Prof. R. Whiddington, The University, Leeds, England.
Lick Observat., Bull.	Bulletin of the Lick Observatory, University of California, U.S.A.
Light and Lighting	Light and Lighting. The Illuminating Engineering Society, 32, Victoria Street, London, S.W.1.
Manchester Phil. Soc., Mem.	Memoirs and Proceedings of the Manchester Literary and Philosophical Society. 36, George Street, Manchester, England.
Mechanical Engineering	Mechanical Engineering. The American Society of Mechanical Engineers, 29, West 39th Street, New York, U.S.A.
M.E.E.	Mining Electrical Engineer. Cromwell Buildings, Blackfriars Street, Manchester, England.
Meteorolog. Office, Geophys. Mem. and Prof. Notes	Geophysical Memoirs and Professional Notes of the Meteorological Office. H.M. Stationery Office, Adastral House, Kingsway, London, W.C.2.
Min. Mag.	The Mineralogical Magazine. Humphrey Milford, Oxford University Press, Amen House, Warwick Square, London, E.C.4.
Mines Mag.	Mines Magazine. C. L. Colburn, 926, Patterson Building, Denver, Colorado, U.S.A.
Monthly Weather Rev.	Monthly Weather Review. Superintendent of Documents, Government Printing Office, Washington, D.C., U.S.A.
M.V. Gazette	Metropolitan-Vickers Gazette. Metropolitan-Vickers Electrical Co., Ltd., Trafford Park, Manchester, England.
Nat. Acad. Sci., Proc.	Proceedings of the National Academy of Sciences. The Home Secretary, The National Academy of Sciences, Constitution Avenue and 21st Street, Washington, D.C., U.S.A.
National Research Council, Bull.	Bulletin of the National Research Council. Publication Office, National Research Council, Constitution Avenue and 21st Street, Washington, D.C., U.S.A.
Nature	Nature. MacMillan & Co., Ltd., St. Martin's Street, London, W.C.2.
Naturwiss	Naturwissenchaften. Julius Springer, Linkstrasse 23-24, Berlin, W.9.
*Nippon Elect. Comm.	Nippon Electrical Communication Engineering. Institute of Telegraph and Telephone Engineers of Japan. No. 1447 Tokyo-Kaijo New Building, Marunouchi, Tokyo, Japan.
N. Cimento	Il Nuovo Cimento. Organo della Societá Italiana di Fisica. N. Zanichelli, Bologna, Italy.
Observatory	Observatory. Taylor and Francis, Red Lion Court, Fleet Street, London, E.C.4.
Onde Élec.	L'Onde Électrique. Bulletin de la Société des Radioélectriciens, 94, Rue de Varenne Paris (7).
Phil. Mag.	The London, Edinburgh and Dublin Philosophical Magazine and Journal of Science. Taylor & Francis, Red Lion Court, Fleet Street, London, E.C.4.
Phot. Indust.	Photographische Industrie. Union Deutsche Verlagsgesellschaft Zweigniederlassung. Krausenstrasse 35-36, Berlin, S.W.19.

Abbreviations.	Full Title and Address.
Phot. J.	The Photographic Journal. The General Editor, The Royal Photographic Society, 35, Russell Square, London, W.C.1.
Physica	Physica. Martinus Nijhoff, 9, Lange Voorhout, The Hague, Holland.
Physics	Physics. The American Institute of Physics, 11, East 38th Street, New York, U.S.A.
Phys. Math. Soc. Japan, Proc.	Proceedings of the Physico-Mathematical Society of Japan. Faculty of Science, Tokyo Imperial University, Tokyo, Japan.
Phys. Rev.	The Physical Review. The American Institute of Physics, 11, East 38th Street, New York, U.S.A.
Phys. Soc., Proc.	Proceedings of the Physical Society. 1, Lowther Gardens, Exhibition Road, London, S.W.7.
Phys. Zeits.	Physikalische Zeitschrift. S. Hirzel, Königstrasse 2, Leipzig, C.1, Germany.
Phys. Zeits. d. Sowjetunion	Physikalische Zeitschrift der Sowjetunion. Tschaikowskaja 16, Charkow, U.S.S.R.
P.O.E.E.J.	The Post Office Electrical Engineers' Journal. Birch & Whittington, 10, Station Road, Epsom, Surrey.
Power	Power. McGraw-Hill Publishing Co., Inc., 330, West 42nd Street, New York, U.S.A., and Aldwych House, London, W.C.2.
Preuss. Akad. Wiss. Berlin, Abhandlungen	Abhandlungen der Preussischen Akademie der Wissenscfhaten. Walter de Gruyter & Co., 38 Genthiner Strasse, Berlin, W.10
Preuss. Akad. Wiss. Berlin, Ber.	Sitzungsberichte der Preussischen Akademie der Wissenschaften. Walter de Gruyter & Co., 38 Genthiner Strasse, Berlin, W.10
*Q.S.T.	Q.S.T. American Radio Relay League, Inc., West Hartford, Conn., U.S.A.
R. Accad. Navale Livorno, Pubb.	Pubblicazioni del R. Istituto Elettrotecnico e delle Communicazioni dell Marina, Regia Accademia Navale, Livorno, Italy.
Radio Research, Japan, Report	Report of Radio Researches and Works in Japan. The National Research Council of Japan, Imperial Academy House, Ueno Park, Tokyo, Japan.
Radiography	Radiography. Journal of The Society of Radiographers. 32, Welbeck Street, London, W.1.
Radiology	Radiology. The Secretary-Treasurer, The Radiological Society, 607, Medical Arts Building, Syracuse, New York, U.S.A.
Rev. d'Acoustique	Revue d'Acoustique. Les Presses Universitaires de France, 49, Boulevard Saint-Michel, Paris (5e).
Rev. de Mét	Revue de Métallurgie. 5, Cité Pigalle, Paris (IXe).
Rev. d'Optique	Revue d'Optique Théorique et Instrumentale. 3 & 5, Boulevard Pasteur, Paris (15e).
Rev. Modern Physics	Reviews of Modern Physics. The American Institute of Physics, 11, East 38th Street, New York, U.S.A.
Rev. Sci. Instruments	Review of Scientific Instruments. The American Institute of Physics, 11, East 38th Street, New York, U.S.A.
R.G.E.	Revue Générale de l'Électricité. 12, Place de Laborde, Paris (VIIIe).
Richerche di Ingegneria	Ricerche di Ingegneria, Sindacato Nazionale Fascista Ingegneri della Confederazione Professionisti a Artisti, Via Vittorio Veneto 7, Casella Postale 482, Rome (105), Italy.

Abbreviations.	Full Title and Address.
Roy. Astron. Soc. Canada, J.....	Journal of the Royal Astronomical Society of Canada. 198, College Street, Toronto, Canada.
Roy. Astron. Soc., Mem.....	Memoirs of the Royal Astronomical Society, Burlington House, London, W.1.
Roy. Astron. Soc., M.N.....	Monthly Notices of the Royal Astronomical Society. Burlington House, London, W.1.
Roy. Astron. Soc., M.N., Geophys. Supplement	Monthly Notices, Geophysical Supplement of the Royal Astronomical Society, Burlington House, London, W.1.
Roy. Dublin Soc., Proc.....	The Scientific Proceedings of the Royal Dublin Society. Ballsbridge, Dublin, Ireland.
Roy. Inst., Proc.....	Proceedings of the Royal Institution of Great Britain. 21, Albemarle Street, London, W.1.
Roy. Irish Acad., Proc.....	Proceedings of the Royal Irish Academy. Hodges, Figgis & Co., Dublin, Ireland, and Williams & Norgate, 28, Little Russell Street, London, W.C.1.
Roy. Meteorolog. Soc., J.	Quarterly Journal of the Royal Meteorological Society. The Royal Meteorological Society, 49, Cromwell Road, South Kensington, S.W.7.
Roy. Meteorolog. Soc., Mem.....	Memoirs of the Royal Meteorological Society. The Royal Meteorological Society, 49, Cromwell Road, South Kensington, S.W.7.
Roy. Soc. Arts, J.	Journal of the Royal Society of Arts. G. Bell & Sons, Ltd., York House, Portugal Street, W.C.2.
Roy. Soc. Canada, Trans.	Transactions of the Royal Society of Canada, Ottawa, Canada.
Roy. Soc. Edinburgh, Proc.	Proceedings of the Royal Society of Edinburgh. Robert Grant & Son, 126, Princes Street, Edinburgh, and Williams & Norgate, 28, Little Russell Street, London, W.C.1.
Roy. Soc. Edinburgh, Trans.....	Transactions of the Royal Society of Edinburgh. Robert Grant & Son, 126, Princes Street, Edinburgh, and Williams & Norgate, 28, Little Russell Street, London, W.C.1.
Roy. Soc., Phil. Trans.	Philosophical Transactions of the Royal Society of London. Harrison & Sons, Ltd., 44–47, St. Martin's Lane, London, W.C.2.
Roy. Soc., Proc.	Proceedings of the Royal Society of London. Harrison & Sons, Ltd., 44–47, St. Martin's Lane, London, W.C.2.
Roy. Soc. Victoria, Proc.	Proceedings of the Royal Society of Victoria. Ford & Son, Victoria Street, Melbourne, C.1, Australia.
Roy. Techn. Coll., Glasgow, J.....	Journal of the Royal Technical College, Glasgow. Robert Andersen, 142, West Nile Street, Glasgow, C.1.
Ryojun Coll. Eng., Mem.	Memoirs of the Ryojun College of Engineering. The Chairman of the Publication Committee. Ryojun College of Engineering, Port Arthur, South Manchuria.
S. African I.E.E., Trans.	Transactions of the South African Institute of Electrical Engineers. Kelvin House, 100, Fox Street, Johannesburg, S. Africa.
*School Science Rev.	School Science Review. John Murray, Albemarle Street, London, W.1.
Science	Science. The Science Press, Grand Central Terminal, New York, U.S.A.
Seismological Soc. of America, Bull.	Bulletin of the Seismological Society of America. The Stanford University Press, Stanford University, Berkeley, California, U.S.A.
Siemens Zeits	Siemens Zeitschrift. Siemens-Schuckertwerke Aktiengesellschaft, Verwaltungsgebäude, Berlin-Siemensstadt.

Abbreviations.	Full Title and Address.
Smithsonian Inst. Astrophys. Obs., Ann.	Annals of The Astrophysical Observatory of The Smithsonian Institution. The Smithsonian Institution, Washington, D.C., U.S.A.
Soc. Belge Élect., Bull.	Bulletin de la Société Belge des Électriciens, 8, rue Sabatier, Marcinelle, Belgium.
Soc. Franc. Élect., Bull.....	Bulletin de la Société Française des Électriciens. Gauthier-Villars et Cie, Quai des Grands-Augustins 55, Paris (6e).
Soc. Franç. Phot. et Ciné., Bull. ..	Bulletin de la Société Française de Photographie et de Cinématographie. Rue de Clichy 51, Paris.
Soc. Glass Technol., J.	Journal of the Society of Glass Technology, Darnall Road, Sheffield 9, England.
Soc. Scien. Fennica, Acta and Comm. Phys.-Math.	Societas Scientiarum Fennica, Acta and Commentationes Physico-Mathematicae Akademische Buchhandlung, Helsingfors, Finland.
Solar Phys. Obs., Cambridge, Ann.	Annals of the Solar Physics Observatory, Cambridge. The Cambridge University Press, Fetter Lane, London, E.C.4.
Techn. Phys., U.S.S.R.	Technical Physics of The U.S.S.R. State Technical Theoretical Press, Leningrad, U.S.S.R.
Terr. Mag.	Terrestrial Magnetism and Atmospheric Electricity. The John Hopkins Press, Baltimore, Maryland, U.S.A.
T.F.T.	Telegraphen- und Fernsprech-Technik. R. Dietze, Wichmannstrasse 5, Berlin, W.62.
Tijds. Nederland Radiogenootschap.	Tijdschrift van het Nederlandsch Radiogenootschap, Rodenbachlaan, Eindhoven, Holland.
Tohoku Math. J.	The Tohoku Mathematical Journal. Tohoku Imperial University, Sendai, Japan.
Tohoku Univ., Sci. & Technol. Reports	Scientific and Technology Reports of the Tohoku Imperial University. Maruzen Co., Ltd., Sendai, Japan.
Tokyo B.D., Sci. Reports	Science Reports of the Tokyo Bunrika Daigaku, Section A. Bunrika Daigaku, Koishikawa, Tokyo, and the Maruzen Co., Ltd., Tokyo, Japan.
Tokyo Univ. Aeronaut. Research Inst., Report	Report of the Aeronautical Research Institute, Tokyo Imperial University, Komaba, Tokyo, Japan.
Tokyo Univ. Earthquake Research Inst., Bull.	Bulletin of the Earthquake Research Institute, Tokyo Imperial University, Tokyo, Japan.
Tokyo Univ., Faculty of Eng., J...	Journal of the Faculty of Engineering, Tokyo Imperial University. Maruzen Co., Ltd., Tokyo, Japan.
Tokyo Univ., Faculty of Sci., J. ..	Journal of the Faculty of Science, Tokyo Imperial University. Maruzen Co., Ltd., Tokyo, Japan.
Tsing Hua Univ., Sci. Reports....	Science Reports of the National Tsing Hua University, Series A. Peiping, China.
Union Géodésique et Géophysique Internationale, Publ.	Publications de l'Union Géodésique et Géophysique Internationale, Série A. L'Association Internationale de Géodésie, Rue d'Anjou, 78, Paris (8e).
Union Obs. S. Africa, Circ.....	Circular of the Union Observatory of South Africa, Johannesburg, S. Africa.
Univ. Durham Phil. Soc., Proc.....	Proceedings of the University of Durham Philosophical Society. E. Patterson, Asst. Librarian, Armstrong College, Newcastle-upon-Tyne, England.

Abbreviations	Full Title and Address
Univ. Nac. La Plata, Estudio Ciencias	Universidad Nacionale de La Plata. Publicaciones de la Facultad de Ciencias Fisicomatematicas, La Plata, Argentine.
Univ. of Illinois Eng. Exp. Sta., Bull.	Bulletin of the University of Illinois Engineering Experiment Station. University of Illinois, Urbana, Illinois, U.S.A.
V.D.E. Fachberichte	Fachberichte des Verbandes Deutscher Elektrotechniker. V.D.E. Verlag, Bismarckstrasse 33, Charlottenburg 4, Berlin.
V.D.I.....	Zeitschrift des Vereines Deutscher Ingenieure. V.D.I. Verlag, G.m.b.H., Dorotheenstrasse 40, Berlin, N.W.7.
Wärme	Die Wärme. Zeitschrift für Dampfkessel und Maschinenbetrieb. Buch- und Tiefdruck m.b.H., Schützenstrasse 18-25, Berlin, S.W.19.
Washington Acad. Sci., J.....	Journal of the Washington Academy of Sciences. 450, Ahnaip Street, Menasha, Wis., U.S.A.
Wireless Engineer	Wireless Engineer and Experimental Wireless. Iliffe & Sons, Ltd., Dorset House, Stamford Street, London, S.E.1.
Wireless World	Wireless World. Dorset House, Stamford Street, London, S.E.1.
Wiss. Veröff. a. d. Siemens-Werken	Wissenschaftliche Veröffentlichungen aus den Siemens-Werken. J. Springer, Linkstrasse, 23-24, Berlin, W.9.
World Power.....	World Power, 62, Lincoln's Inn Fields, London, W.C.2.
Zeits. f. angew. Math. u. Mechanik.	Zeitschrift für angewandte Mathematik und Mechanik. Ingenieurwissenschaftliche Forschungsarbeiten. V.D.I -Verlag G.m.b.H., Dorotheenstrasse 40, Berlin, N.W.7.
Zeits. f. Astrophysik	Zeitschrift für Astrophysik. J. Springer, Linkstrasse 23–24, Berlin, W.9.
Zeits. f. Elektrochem.....	Zeitschrift für Elektrochemie und angewandte physikalische Chemie. Verlag Chemie, G.m.b.H., Corneliusstrasse 3, Berlin, W.35.
Zeits. f. Fernmeldetechnik.	Zeitschrift für Fernmeldetechnik Werk- und Gerätebau. R. Oldenbourg, Glückstrasse 8, Munich 32, Germany.
Zeits. f. ges. Kälte-Ind.	Zeitschrift für die gesamte Kälte-Industrie. Gesellschaft für Kältewesen m.b.H., Rankestrasse 5, Berlin, W.50.
Zeits. f. Instrumentenk	Zeitschrift für Instrumentenkunde. J. Springer, Linkstrasse 23–24, Berlin, W.9.
Zeits. f. Krist.	Zeitschrift für Kristallographie, Kristallgeometrie, Kristallphysik, Kristallchemie. Akademische Verlagsgesellschaft m.b.H., Markgrafenstrasse 6, Leipzig, C.1, Germany.
Zeits. f. Metallkunde	Zeitschrift für Metallkunde. V.D.I.-Verlag, G.m.b.H., Dorotheenstrasse 40, Berlin, N.W.7.
Zeits. f. phys. Chem., Abt. A. & B.	Zeitschrift für physikalische Chemie (Abteilungen A and B). Akademische Verlagsgesellschaft m.b.H., Markgrafenstrasse 6-Leipzig, C.1, Germany.
Zeits. f. Physik.	Zeitschrift für Physik. J. Springer, Linkstrasse 23–24, Berlin, W.9.
Zeits. f. techn. Physik.	Zeitschrift für technische Physik. J. A. Barth, Salomonstrasse 18B, Leipzig, C.1, Germany.
Zeits. f. wiss. Phot.	Zeitschrift für wissenschaftliche Photographie, Photophysik und Photochemie. J. A. Barth, Salomonstrasse 18B, Leipzig, C.1, Germany.